

DRAFT Master Plan as Amended June 15, 2006



Prepared for:
City of Raleigh Parks
and Recreation Department
Raleigh, NC

Prepared by:



planning landscape architecture civil engineering

2200 West Main Street, Suite 560 Durham, NC 27705



# TRANSMITTAL

Mr. Victor Lebsock
City of Raleigh Parks and Recreation Department
Park and Greenway Planner
P.O. Box 590
222 West Hargett Street Room 608
Raleigh, NC 27602

Dear Vic,

On behalf of Haden Stanziale and the Master Plan Committee, we are pleased to submit this Master Plan Report for the Forest Ridge Park on Falls Lake in Raleigh, North Carolina.

This report summarizes the master plan process, as outlined by Resolution (2003)-735 of the City of Raleigh ordinance which provided the basis for a critical, consensus-based decision making process by the Master Plan Committee. The development of the mission statement, park goals, park program and ultimately the final Master Plan for this outstanding site on Falls Lake was the result of nearly a year of work by a committed group of citizens, Parks and Recreation staff, the Army Corps of Engineers, and the North Carolina Parks and Recreation Department lead by Committee Chair Mary Alice Farrell and Committee Co-Chair, Greg Barley and facilitated by Haden Stanziale staff.

We believe that through a thorough understanding of the park system, the needs assessment, the physical characteristics of this beautiful site and its prominent location on Falls Lake, the Master Plan offered in this report is sensitively designed and respectful of the natural characteristics of the site. In addition, it provides a variety of options for environmental education, family and group activities, exercise, and for fostering an appreciation towards the natural environment by virtue of the stewardship for the land demonstrated in the Master Plan.

We respectfully request approval of this Master Plan by the Raleigh Parks and Recreation Board and ultimately, the City Council and hope that they will agree that this park will be a jewel for the City of Raleigh Parks and Recreation system.

With kind regards, Sincerely,

George E. Stanziale, Jr. Principal in Charge Forest Ridge Park

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# ACKNOWLEDGEMENTS

Haden Stanziale wishes to acknowledge, with gratitude and appreciation, the assistance and information received from the following:

#### CITY COUNCIL

- Philip Isley, Council Member District E
- Jessie Taliaferro, Council Member District B
- Joyce Kekas Council Member At-Large
- James West Council Member, District C
- Thomas Crowder Council Member, District D
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- Victor Lebsock Park and Greenway Planner
- Mary VanHaften Park Planner
- Ivan Dickey
- Diane Sauer
- Michael Kafsky



"A park is a work of art,

designed to produce certain effects upon the mind of men."

~ Frederick Law Olmsted



# TABLE OF CONTENTS

|  | l.  | Pro                             | cess Overview                                               | 1  |
|--|-----|---------------------------------|-------------------------------------------------------------|----|
|  | II. | Intr                            | oduction                                                    | 3  |
|  |     | Committee Meeting Summaries     |                                                             |    |
|  |     | Master Plan Development Process |                                                             |    |
|  |     | A.                              | Education                                                   | 15 |
|  |     |                                 | i. Site Analysis                                            | 17 |
|  |     |                                 | Visual                                                      | 17 |
|  |     |                                 | Soils                                                       | 19 |
|  |     |                                 | Slopes                                                      | 21 |
|  |     |                                 | Topography                                                  |    |
|  |     |                                 | Hydrology                                                   | 25 |
|  |     |                                 | Vegetation & Wildlife                                       |    |
|  |     |                                 | Cultural/Historical                                         | 29 |
|  |     |                                 | Composite Analysis                                          |    |
|  |     |                                 | ii. City of Raleigh Parks and Recreation—Needs Assessment   | 33 |
|  |     |                                 | Mission Statement                                           |    |
|  |     |                                 | Program Statement                                           |    |
|  |     |                                 | i. Forest Ridge Park Program Statement                      |    |
|  |     |                                 | Conceptual Master Plan                                      |    |
|  |     |                                 | Preliminary Master Plan                                     |    |
|  |     |                                 | Final Master Plan                                           |    |
|  |     |                                 | i. Access Points                                            |    |
|  |     |                                 | ii. Trail Network                                           |    |
|  |     |                                 | iii. Adventure Education/Retreat Center and Overnight Lodge |    |
|  |     |                                 | iv. Lakeside Center and Camping Area                        |    |
|  |     |                                 | v. Multi-Use Activity Areas                                 |    |
|  |     |                                 | vi. Forest Ridge Park "South"                               | 59 |
|  |     |                                 | vii. Whitewater Park                                        | 59 |
|  | V.  |                                 | get Summary and Cost Estimates                              |    |
|  |     |                                 | sing Plan and Priorities                                    |    |
|  |     |                                 | ject Summary                                                |    |
|  |     |                                 |                                                             |    |







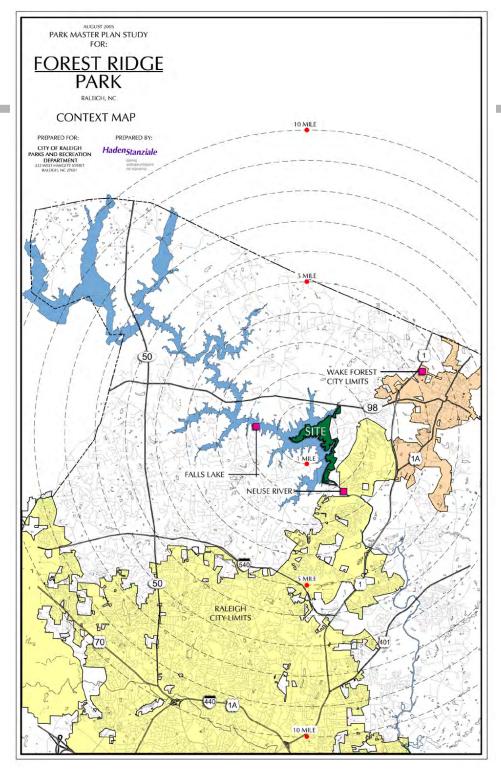
# PROCESS OVERVIEW

The Forest Ridge Park Master Plan Report documents the process that guided the development of the Forest Ridge Park Master Plan. The development of the Forest Ridge Park Master Plan followed the City of Raleigh's park planning process, the purpose of which is to develop a park program that will best meet the needs of the community it is intended to serve.

The City of Raleigh Park Master Plan process involves a series of publicly advertised meetings for the purpose of planning and consensus building that contributes to the overall vision for the Park Master Plan. A citizen Committee with diverse interests in the park is nominated by the Parks, Recreation and Greenways Advisory Board (PRGAB) and approved by Council to serve as the Master Plan Committee. The process informs the public and Committee members about current City of Raleigh parks, programs, recreational needs and desires as well as the goals and objectives of the City of Raleigh Parks and Recreation Department. The Master Plan Committee works closely with Parks and Recreation staff and consultants to contribute a wide range of insights regarding appropriate uses for the site. The consensus-based decision-making process led by the consultant guides the Committee through the development of a mission statement, site program, and final master plan for the park. The process is intended to ensure an appropriate and viable resolution for the proposed park which reflects the goals of the City of Raleigh Parks and Recreation Department, the Master Plan Committee and the needs of the community at large.









# INTRODUCTION

The proposed site for Forest Ridge Park is located in Wake County on a 586 acre parcel on the northeast side of Falls Lake and at the end of Old NC 98. The site is currently owned by the United States Army Corps of Engineers and leased and managed by the NC Wildlife Resource Commission. The City of Raleigh intends to sublease the site for the purpose of managing it as a recreational resource for residents of Raleigh and the surrounding Wake County area.

Forest Ridge Park is proposed as a Metro Park. As defined by the Raleigh Parks Plan, Metro Parks "provide a leisure or recreational opportunity, which, either by size or scale or theme will appeal to a majority of citizens. Examples include Lake Wheeler and Pullen Park." The site may also include characteristics of community and neighborhood parks in order to meet the general recreation needs of the local population.

The site is naturally vegetated with a mixture of diverse hardwoods, evergreens, meadows and varied understory shrubs. Several trails and a primary fire-break road are present and are currently used by local residents. The unique peninsula formation of the parcel provides access to the waterfront of Falls Lake and offers spectacular views and opportunities for water-based recreational programming. The existing location and characteristics of the proposed Forest Ridge Park site were instrumental in determining the most suitable and viable uses for this unique and beautiful amenity.











# Ш.

# COMMITTEE MEETING SUMMARIES

# MEETING #1 April 5, 2005

#### Purpose:

Public Meeting #1 was held to inform area residents and interested parties of the commencement of the Master Planning Process and to receive initial input, including local knowledge of natural or historic features and community desires.

#### **Summary:**

- Public participants were given about 20 minutes to review Site Analysis maps and to interact with staff in an informal manner.
- Haden Stanziale presented an overview of the Master Planning Process and site analysis using a PowerPoint presentation format.
- Community members were invited to ask questions, express concerns, and to share their thoughts on desired site program elements. Issues of access, intensity of development, specific uses and security were expressed as issues of concern.

### References:

Master Plan Committee Meeting Minutes on file

# MEETING #2 June 28, 2005

#### Purpose:

The meeting was held to introduce the Committee Members to the Forest Ridge Project.

## **Summary:**

- Committee Members, City Staff and Consultants were introduced.
- Committee Co-chair explained and clarified Committee voting process, Committee ground rules, and public input process.
- Staff explained City of Raleigh Master Planning Process.
- Staff clarified funding for the project.
- Consultants provided a brief overview of analysis boards and physical conditions of site.
- Staff reviewed the City of Raleigh Parks and Recreation department web site.
- Upcoming Committee meetings, topics and dates were presented.

## References:

- Master Plan Committee Meeting Minutes on file
- Master Plan flow chart and Resolution (2003) 735



## MEETING #3 July 20, 2005

## Purpose:

The meeting was held to present the site analysis and preliminary composite study in detail to the Committee members.

#### **Summary:**

- Consultants presented the site analysis and listened to comments, questions and discussions from the Committee members.
- Committee Members discussed general site issues including the role of the Falls Lake dam area
  in the proposed site, the effects of a required 50' Neuse River Buffer around the shoreline of
  the site, universal access and slope issues, and the role of the spillway in relation to future offsite connectivity at the southern end of the site.
- Staff clarified the direction of the Master Planning Process.
- Upcoming meeting dates and topics were reiterated.

#### References:

• Master Plan Committee Meeting Minutes on file

# MEETING #4 August 10, 2005

#### Purpose:

The meeting was held to introduce Committee members to the recreation programs and needs for the City of Raleigh. Representatives from Parks and Recreation Programs presented overviews and specific needs of their respective programs.

#### Summary.

- A quorum was not present so voting could not occur.
- Committee members were provided with a copy of the Executive Summary from the Raleigh Parks Plan.
- Staff explained that a Recreation Participation and Preference Survey was used to determine the current demand and the latent demand for the various recreation activities available throughout Raleigh. Latent demand was defined as the difference between actual participation and desired participation. Staff also defined "level of service" as the number of services available (i.e. park acres, # of ball fields etc.)
- Staff provided an overview of recreation needs as defined by the Comprehensive Plan.
- Several City of Raleigh Parks and Recreation program leaders presented specific program services and needs to Committee Members.
- Staff reminded Committee Members of the upcoming field trip to the site and to several existing Raleigh parks.



# COMMITTEE MEETING SUMMARIES (cont.)

# MEETING #4 (cont.)

• Consultants introduced the Programming Phase of the process and expressed the importance of full attendance from Committee members during this critical phase.

#### References:

- Master Plan Committee Meeting Minutes on file
- Executive Summary from the Raleigh Parks Plan
- City of Raleigh Parks and Recreation Mission Statement
- 2003 Parks and Recreation Class Registrations

# **MEETING #5** August 24, 2005

#### Purpose:

The meeting was held to commence the mission statement development and programming phase of the Forest Ridge Park Master Planning process.

#### **Summary:**

- Consultants introduced the process for developing the Mission Statement and the Site Program.
   Consultants explained that the mission statement conveys the ideas, feelings and thoughts about "how we want to accomplish this park." The program elements are the physical recreational components that will go into the park and should be consistent with the mission statement.
- Committee members dispersed into three small groups to "brainstorm" and develop draft mission statements.
- Committee members shared draft mission statements with the entire group and asked questions to one another and discussed various themes in the mission statements.
- Committee Members discussed general programming issues.
- Committee members unanimously agreed for consultants to take the three draft mission statements and to consolidate into a single mission statement to be presented at the beginning of the next meeting.

## References:

- Master Plan Committee Meeting Minutes on file
- Draft mission statements by Committee



# MEETING #6

## Purpose:

Sept. 14, 2005

The meeting was held to present, discuss and finalize the mission statement for the Forest Ridge Park Master Plan and to begin identifying potential program elements for the Park.

#### Summary:

- Staff reviewed latent demand as requested by Committee Members.
- Committee members discussed and edited the Mission Statement. The revised Mission Statement was unanimously approved.
- Committee members shared their ideas of passive vs. active recreational activities and then identified program elements including features, programs, and facilities that they would like to see on the site.
- A list of program elements was generated.

## References:

Master Plan Committee Meeting Minutes on file

## MEETING #7 Sept. 28, 2005

#### Purpose:

The meeting was held to finalize the Park Program.

#### Summary:

- The meeting started with a Public Input presentation by a representative of Triangle Off-Road Cyclists. Committee Members asked general questions about off-road cycling (i.e. mountain biking).
- A motion was made and approved to revisit the mission statement. The mission statement was revisited, revised, and unanimously approved as final.
- Committee Members voted on each of the program elements generated at the last meeting by placing a dot next to the element and identifying it as either a high, medium or low priority. A "no" column was also provided if Committee Members did not want a particular element in the park.
- Votes were weighted with a point system and then tallied.
- · Committee members agreed to eliminate all negative and several lowest scoring programs in order to finalize the Park Program list.
- Committee Members were presented with a list of Wakefield Estates community concerns by two Committee Members who also reside in or near the Wakefield Estates neighborhood.
- Consultants explained that they would generate several conceptual schemes that would "test" the program elements on the site. It was stated that the Committee members would have the opportunity to discuss and vote on the schemes prior to the development of a final master plan.



# COMMITTEE MEETING SUMMARIES (cont.)

# MEETING #7

(cont.)

## References:

- Master Plan Committee Meeting Minutes on file
- Park Program Voting Results Summary
- "Wakefield Community Concerns" presented by Committee Member Ed Teague
- Friends of Mountain to Sea Trail letter

## MEETING #8 Oct. 26, 2005

#### Purpose:

The meeting was held to introduce the preliminary "relationship diagrams" for Forest Ridge Park and to receive input and direction from the Master Plan Committee.

#### **Summary:**

- The concept of "relationship diagrams" was introduced and described as graphic representations which illustrate general locations of site/program elements in relation to each other.
- Two "relationship diagram" concepts were introduced by the consultants.
- The four primary areas of the park were identified which were, starting from the south and heading north, Forest Ridge Park "South", south transition area, Primary Park Peninsula area, and the north transition area.
- Committee Members asked general questions throughout the presentations.
- After the presentations, Committee Members were given an opportunity to independently review the "relationship diagrams" and to discuss issues and concerns amongst themselves.
- Committee Members then individually shared comments, concerns and ideas regarding the "relationship diagrams."
- Committee Members were confused as to why some of the negative scoring program elements, which were deleted at the last meeting, were presented in the relationship diagrams.
   Consultants explained that during the "testing" of the program elements, they felt that some of the previously deleted elements were suitable and could fit appropriately into the site. Other low scoring or negative scoring elements that consultants felt were in direct conflict with the site (i.e. skate boarding and horseback riding) were left out of the relationship diagrams.
- Committee Members unanimously approved disc golf to be returned to the list of possible program elements in the master plan. (Disc golf was deleted in the last meeting as a negative scoring element.)
- Sand volleyball was approved 8-5 to be returned to the list of possible program elements in the master plan. (Sand volleyball was deleted in the last meeting as a negative scoring element.)



# MEETING #8 (cont.)

- Committee Members unanimously approved to keep tennis as a deleted element.
- The Committee voted on which concept they would prefer to guide the next phase of the master plan development process. The Committee agreed to vote on the following three scenarios:
  - Concept A "as is"
  - Concept A "hybrid" -the hybrid concept kept Concept A as is except for the location of the Ropes Course. The location of the Ropes Course was moved to the same location as the Ropes Course in Concept B.
  - Concept B "as is"
- Three Committee members voted on Concept A "as is". Two Committee members voted on the hybrid of Concept A and seven Committee members voted on Concept B. It was approved for the consultants to use Concept B to guide the next phase of the master plan development.

#### References:

Master Plan Committee Meeting Minutes on file

# MEETING #9 Nov. 30, 2005

#### Purpose:

The meeting was held to introduce the Preliminary Master Plan for Forest Ridge Park and to receive input and direction from the Master Plan Committee.

#### **Summary:**

- Consultants provided a recap of the process for developing the preliminary master plan stating that the consultants used the two relationship diagrams and direction from the Committee as well from Parks and Recreation staff to develop the current preliminary plan.
- Consultants presented the plan focusing on access points, trail systems and primary activity areas.
- The proposed campground area was identified as a concern by the Committee. Committee Members
  unanimously agreed to table this issue for the time being and to share other comments, insights,
  and opinions regarding the Preliminary Master Plan. All Committee members shared comments
  regarding the Preliminary Master Plan.
- Staff explained and clarified the phasing process that is part of the Master Plan Process.
- Committee members agreed that they would continue thinking about the Master Plan for the next two weeks and would return to the next meeting with additional comments.

#### References:

Master Plan Committee Meeting Minutes on file



# COMMITTEE MEETING SUMMARIES (cont.)

## MEETING #10 Dec. 14, 2005

#### Purpose:

The meeting was held to continue discussions regarding the preliminary master plan for Forest Ridge Park and to receive additional input and direction from the Master Plan Committee.

- A motion was made to discuss the issue of removing the proposed Ropes Course due to a
  perceived lack of need for this type of recreational facility. Committee members voted 9-2
  against the motion.
- Comments from the USACOE in regards to the Preliminary Master Plan were shared with Committee Members.
- Camping area discussion resumed from the last meeting. Staff explained that campsites would
  primarily be used by summer camp programs and by the Adventure Education Center activities
  programmed throughout the year by the Parks and Recreation Department. It was agreed that
  there would not be any individual drive up campsites as illustrated on the Preliminary Master
  Plan.
- Committee members discussed issues of trail reductions and trail mileage and agreed to alter lengths and configurations of trails in the Final Master Plan.

## References:

- Master Plan Committee Meeting Minutes on file
- Addendum to minutes from meeting #10 on file
- Comments from USACOE

## MEETING #11 Jan. 11. 2006

#### Purpose:

The meeting was held to present and to receive input for the trail revisions in the Preliminary Master Plan for Forest Ridge Park and to finalize the plan. Additionally, Priority Program Element recommendations were presented and a draft of the Master Plan Report was disseminated for committee input.

- The meeting commenced with two public presentations: Bill Camp of Triangle Off-Road Cyclists discussed mountain biking needs in the area and David Bell of Camp Kanata discussed the facilities and services provided by his camp.
- Consultants presented trail revisions and recommendations.
- A Committee member made a motion to:
  - Convert paved park trail in area south of the southern Multi-Use Area into a multi-use trail for pedestrians and bikers with pedestrians having the right-of-way



# MEETING #11 (cont.)

- Bring total length of mountain biking trails to 8 miles using the area south of the main paved road to accommodate additional trail lengths.
- The committee voted and unanimously approved the recommended trail revisions.
- A Committee member made a motion to consider removing the Adventure theme from the Forest Ridge Park Master Plan including:
  - The removal of the ropes course
  - The removal of the climbing wall
  - Removal of summer camp programs
  - Removal of amphitheater
  - Scaled back Adventure Education and Conference Center
  - Scaled back lodge

and to seek services through a partnership with another facility that already has these components, specifically Camp Kanata.

- The motion was voted on and defeated 11-2.
- Program Element Priority recommendations were introduced to committee members. More
  discussion and approval of these recommendations will occur at the next meeting. The Priority
  Program Element recommendations were presented as follows:
  - HIGH

Adventure education and retreat center

Mutli-use activity area (north)

Paved park trail to point (north section)

Associated roads

MEDIUM

Overnight lodge

Disc golf

Forest ridge park "south" parking lot

Paved park trail (south section)

Associated roads

LOW

Lakeside center

Camping area

Forest ridge park "south" picnicking area

Associated roads

## References:

- Master Plan Committee Meeting Minutes on file
- Ropes Course Participation Statistics
- · Challenge Course Defined
- Informal Citizen Survey conducted by Committee Member Tony Pilarinos
- Triangle Area Mountain Bike Trail Resources handout



# COMMITTEE MEETING SUMMARIES (cont.)

# MEETING #12 Jan. 25, 2006

## Purpose:

The meeting was held to present the Final Master Plan and the Priority Element Recommendations and to achieve approval on both from the Master Plan Committee.

- Final Master Plan was approved 11-2 with 1 amendment to change the surface on the southern portion of the paved park trail into a pervious surface.
- After discussion and input from the Committee, the Priority Program Elements were approved
   11-2 as follows:
  - HIGH

Adventure Education and Retreat Center

Multi-Use Activity Area (North)

Paved Park Trail to Point (North Section)

Lakeside Center

Forest Ridge Park "South"

**Associated Roads** 

MEDIUM

Overnight Lodge

Paved Park trail with alternate surface (South Section)

**Associated Roads** 

LOW

Camping area

Associated roads and building

# References:

- Master Plan Committee Meeting Minutes on file
- "Top Ten Reasons Parks are Important" article

# MEETING #13 March 22, 2006

#### Purpose:

The meeting was held to review comments from Public Meeting #2, discuss potential revisions to the Master plan, and achieve approval from the Master Plan Committee.

- The committee was informed about the main concerns that came out of last months public meeting:
  - Increase single track trails
  - Park program priorities



# MEETING #13 (cont.)

- The committee was reminded that their purpose in setting priorities was to guide the future decision making process by the P&R dept. and that the decisions were not to be based upon funding.
- The next steps of the process were explained as follows: Following a 30 day public
  notification period, the Master Plan goes to the Parks Recreation and Greenway Advisory
  Board (PRGAB) or review and approval. If approved by the PRGAB, the plan then goes to
  City Council for review and comment. Concurrently, the US Army Corps of Engineers
  (USCOE) and NC Department of Environment and Natural Resources (NCDENR) review the
  Plan. Modifications could occur during all review phases. Once the Plan is approved, the
  site design phase project commences.
- A motion was made to expand the single track bike trails to 20 miles.
- A motion was made to change the Master Plan Report text to read "up to 20 miles for single track bike trails". Motion passed 12-1.
- A motion was made to increase the wilderness trails, as site conditions allow, up to 5 miles. Motion passed 13-0.
- An overview of the March 9, 2006 meeting with the City Administration was shared with the Committee. It was learned at the March 9th meeting that Falls Lake is designated as a Class B Area which prohibits swimming. NCDENR's Department of Water Quality (DWQ) is the regulating body regarding this issue.

#### References:

- Master Plan Committee Meeting Minutes on file
- Ci ty Adminstration Meeting Minutes on file



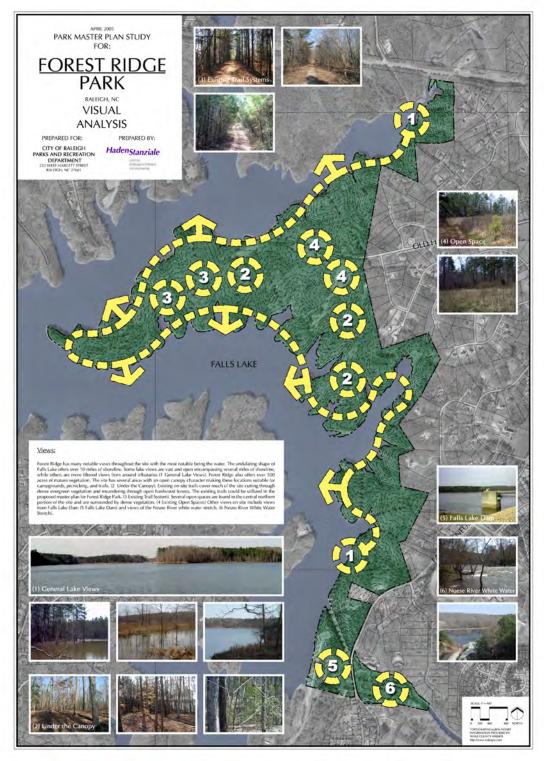
## A. EDUCATION

The Master Plan Development Process commenced with a twofold education process. First, to gain a thorough understanding of the proposed site for Forest Ridge Park, consultants from Haden Stanziale conducted a comprehensive inventory and evaluation of the natural and man made features found on the site. Utilizing available site data, including a site survey, wetland delineation information, Wake County GIS data and an archaeological survey, the consultants compiled a series of analysis maps for use during public meetings, Committee meetings and the Master Plan development process. The individual analysis maps were eventually compiled into a composite map illustrating areas with the highest concentration of constraints for development and subsequently, the areas most suitable for development. The analysis process played a critical role in identifying and locating program elements including site structures, activity areas and preservation areas.

Second, Committee members were introduced to the City of Raleigh Parks Plan as well as to individual program needs of the City of Raleigh Parks and Recreation Department. The City of Raleigh Athletics Department, Adventure Program and Nature Program all presented specific program needs in order to help Committee Members identify appropriate and necessary recreational elements and programs for Forest Ridge Park.









#### VISUAL

SOILS

SLOPES

**TOPOGRAPHY** 

HYDROLOGY

VEGETATION & WILDLIFE

CULTURAL & HISTORICAL

COMPOSITE

# A. EDUCATION

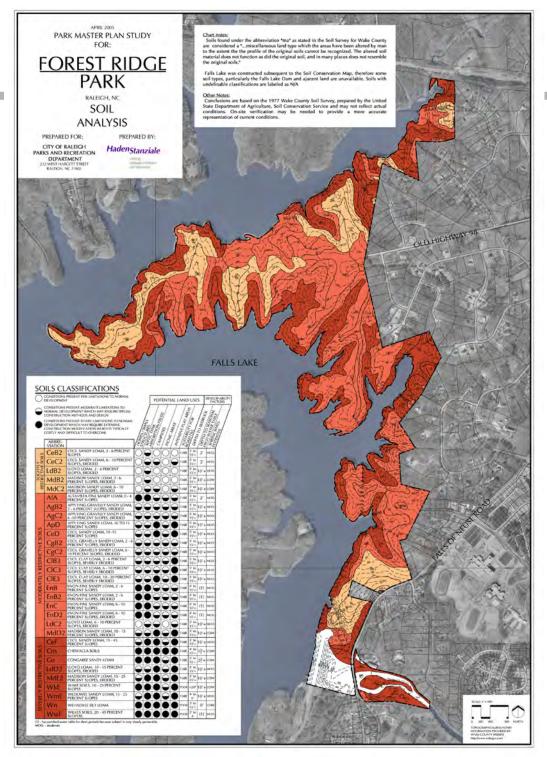
# i. SITE ANALYSIS

Due to its unique land formation and location on Falls Lake, Forest Ridge Park is host to expansive water views across the lake and along ten miles of forested shoreline. The site currently offers roughly 586 acres of mature and diverse vegetation including areas with large open canopies, pine stands, and open meadows. Existing on-site trails cover much of the site and meander through the different stands of vegetation and down to the water's edge. The uniqueness of the site is enhanced by the presence of cultural resources found throughout the woodlands.

The visual analysis provided a general overview of the existing character of the site and was complemented by multiple site visits by the consultants and an additional site visit by Committee members.









VISUAL

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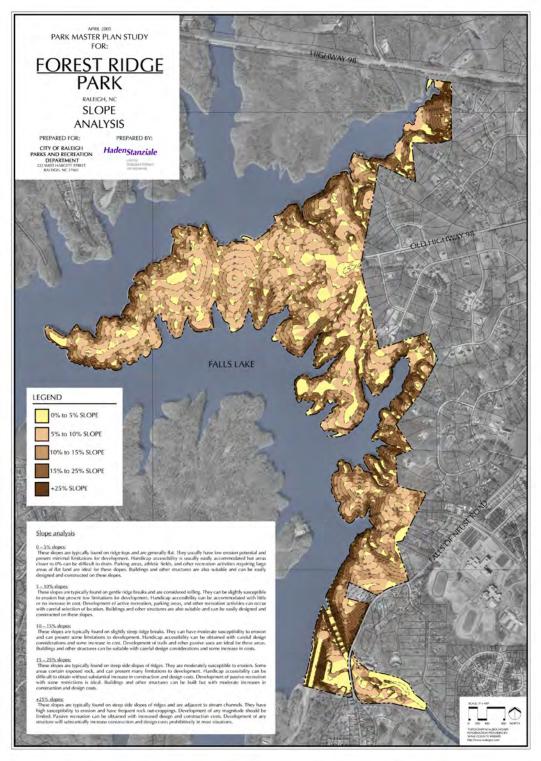
A. EDUCATION

# i. SITE ANALYSIS

The majority of soils found along the shoreline of the site are considered severely restrictive for most types of development except for picnic areas and small structures in some areas. The primary peninsula area as well as the southern most area of the site near the existing cemetery exhibit soils with relatively limited restrictions for development. Site elements considered "high intensity" (e.g. primary structures, primary activity areas and main roads) were, as much as possible, identified for areas with the most suitable soils while the areas with restrictive soils were identified for primarily hosting site trail systems or for preservation areas.

The soils analysis reflects data from the 1977 Wake County Soil Survey prepared by the United States Department of Agriculture, Soil Conservation Service and may not reflect actual conditions. While the available information provides a general overview of site conditions, on-site soil testing will be required prior to final siting of site elements and activity areas.







VISUAL

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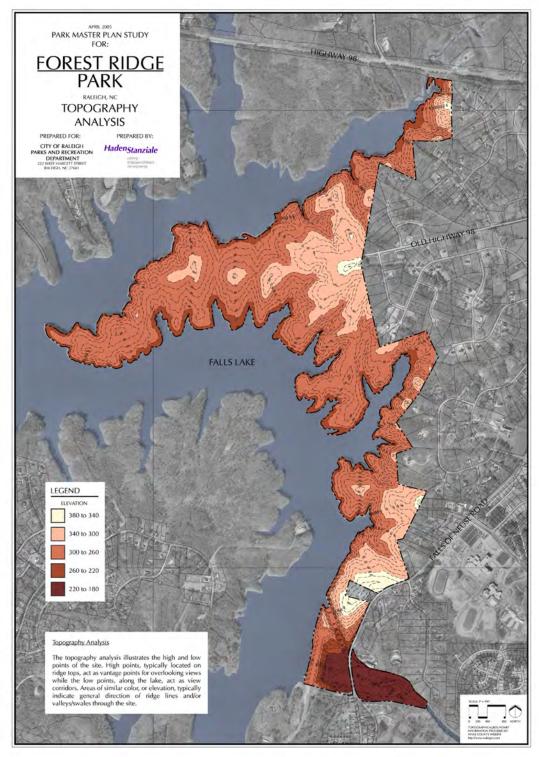
COMPOSITE

A. EDUCATION

#### i. SITE ANALYSIS

Slopes found on the Forest Ridge Park site vary with the steepest slopes of 25% or greater being found along the shoreline and the more moderate slopes located along the center of the primary peninsula area. The existing slopes on site were used in identifying locations for site elements in an effort to minimize grading for park components such as roads, parking lots and structures. By minimizing the need for grading, large stands of existing trees can be preserved and incorporated into the proposed development for the park.







VISUAL

SOILS

SLOPES

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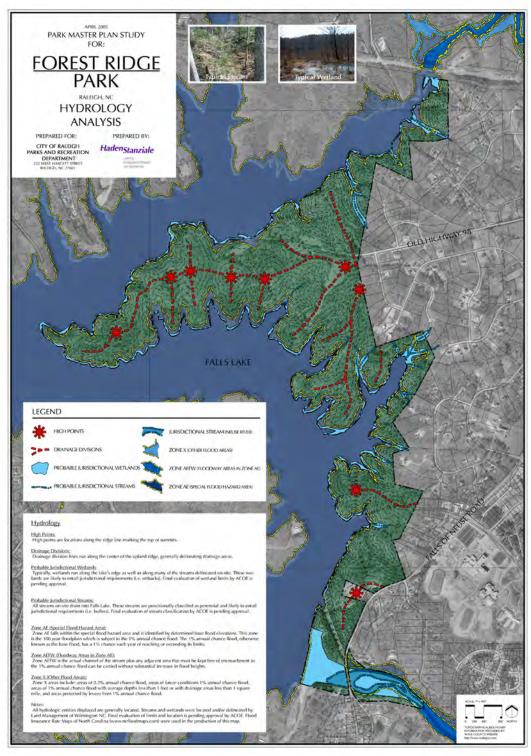
COMPOSITE

A. EDUCATION

# i. SITE ANALYSIS

Topographic elevations across the site range from a lake elevation of approximately 250' m.s.l to high point elevations of approximately 310-340' m.s.l along ridge tops. The general topography of the site has minimal elevation change creating a gently rolling landscape especially along the primary peninsula area. Where appropriate, high point elevations will be utilized as overlooks providing sweeping views of Falls Lake and the surrounding area.







VISUAL

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SLOPES

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CULTURAL & HISTORICAL

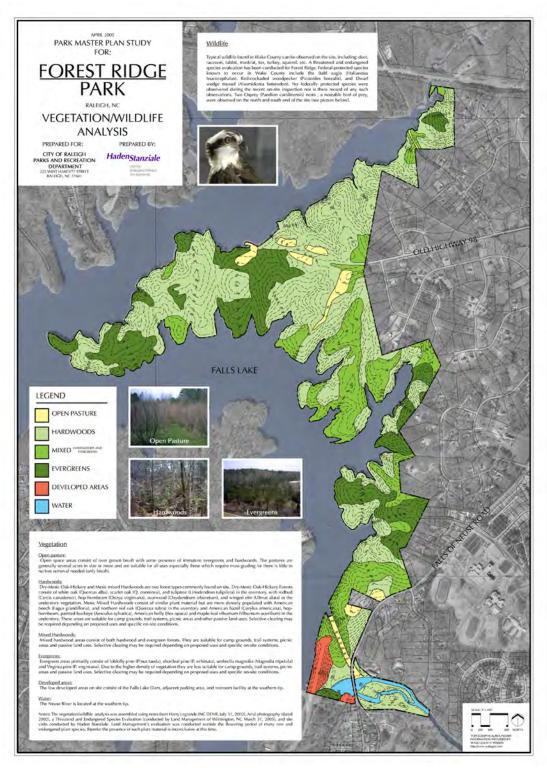
COMPOSITE

A. EDUCATION

i. SITE ANALYSIS

Streams and wetlands were preliminarily located and/or delineated on site by Land Management of Wilmington, NC. Haden Stanziale used the data provided by Land Management to illustrate the general locations of streams, wetlands and floodway areas including the 100 year floodplain. Structures were kept outside of the 100 year floodplain although Wake County regulations allows for certain development in these areas. The hydrology analysis assisted in identifying preliminary locations of stream crossings for bike and pedestrian trails. Primary roads were directed away from any significant streams or drainage divisions. Final evaluation of limits and locations of hydrologic entities are pending approval by the Army Corps of Engineers. Trails, roads and other site elements will be adjusted accordingly when locations of hydrologic entities are finalized to minimize impact and to accommodate potential required buffers.







VISUAL

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COMPOSITE

A. EDUCATION

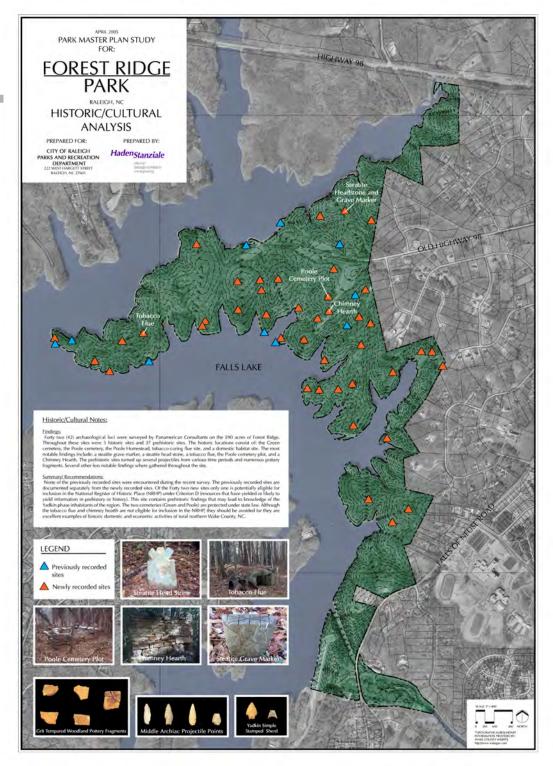
i. SITE ANALYSIS

The Forest Ridge tract is entirely forested except for several open fields that are currently managed by the NC Wildlife Resources Commission. Hardwood communities found on site are the Dry-Mesic Oak-Hickory community and the Mesic Mixed Hardwood community. Dry-Mesic Oak-Hickory forests consist of an overstory of white oak, scarlet oak, and tulip tree, and an understory of redbud, hop-hornbeam, sourwood, and winged elms. Mesic Mixed Hardwood forests are similar in composition to the Mesic Oak-Hickory community but are more densely populated with American beech, and northern red oak in the overstory and American hazel, hop-hornbeam, painted buckeye, American holly, and maple-leaf viburnum in the understory. While selective clearing may be required due to proposed uses, specimen trees, large stands of overstory trees and some understory vegetation will be prioritized for preservation.

The evergreen stands consist of loblolly pine, shortleaf pine, umbrella magnolia, and Virginia pine. These stands are areas where selective clearing should first occur as the evergreen stands generally grow more quickly and have a lesser replacement value than the mature hardwoods found on site.

Typical wildlife found in Wake County can be observed on the site, including deer, raccoon, rabbit, muskrat, fox, turkey, and squirrel, etc. A threatened and endangered species evaluation has been conducted for Forest Ridge but did not show evidence of any such species on the site. Osprey (Pandion carolinensis), a bird of prey, have been observed across the lake in nesting platforms.







VISUAL

SOILS

SLOPES

**TOPOGRAPHY** 

HYDROLOGY

VEGETATION & WILDLIFE

CULTURAL & HISTORICAL

COMPOSITE

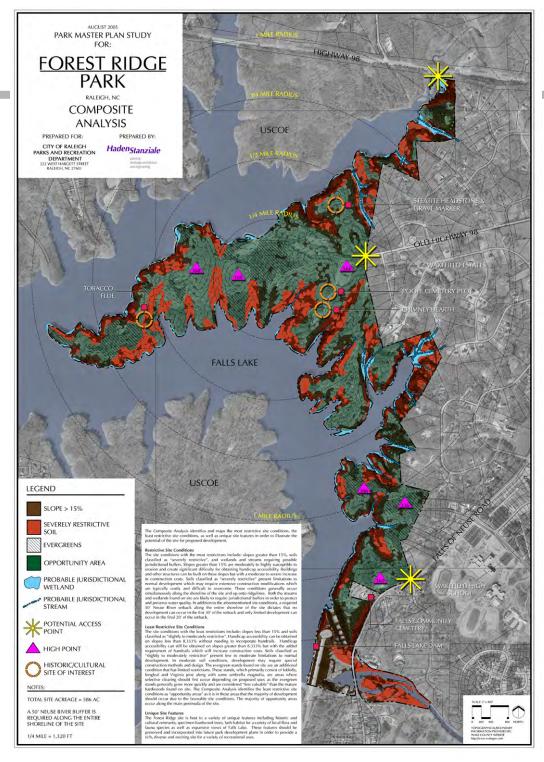
A. EDUCATION

#### i. SITE ANALYSIS

Panamerican Consultants, Inc (PCI) of Tuscaloosa, Alabama conducted an intensive archaeological survey of the Forest Ridge Park site. Consultants graphically compiled the primary findings by PCI in the Cultural/Historical Analysis map. PCI surveyed 42 archaeological loci and identified 5 as historic sites and 37 as prehistoric sites. The historic locations consist of: the Green cemetery, the Poole cemetery, the Poole Homestead, a tobacco-curing flue, and a domestic habitat site. Both cemeteries are protected under state law and one of the newly recorded sites is potentially eligible for inclusion in the National Register of Historic Places. The most notable findings include: a steatite grave marker, a steatite headstone, a tobacco-curing flue, the Poole cemetery plot, and a chimney hearth. Cultural and historical remnants will remain buffered and protected from proposed development.









VISUAL

SOILS

SLOPES

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COMPOSITE

A. EDUCATION

#### i. SITE ANALYSIS

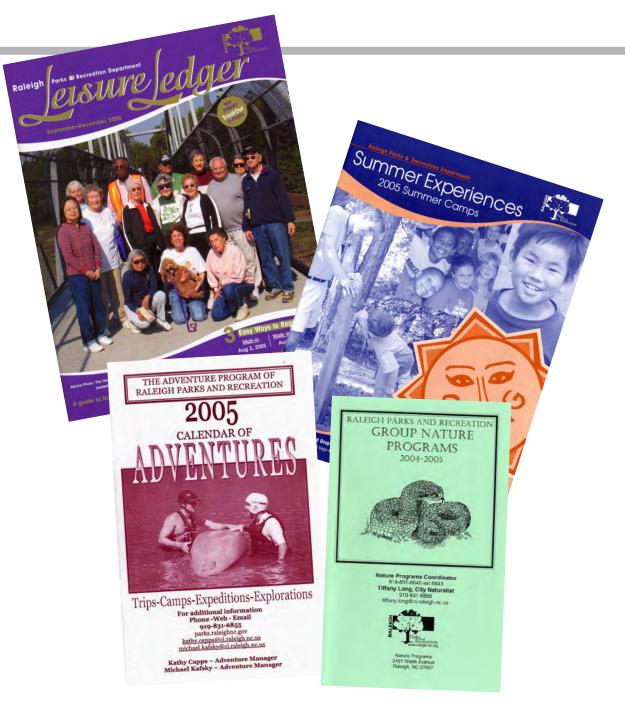
The Composite Analysis identifies and maps the most restrictive site conditions, the least restrictive site conditions, as well as unique site features in order to illustrate the potential development of the site.

The site conditions with the most restrictions include: slopes greater than 15%, soils classified as "severely restrictive", and wetlands and streams requiring possible jurisdictional buffers. Additionally, a required 50' Neuse River setback along the entire shoreline of the site dictates that no development can occur in the first 30' of the setback and only limited development can occur in the final 20' of the setback.

The site conditions with the least restrictions include: slopes less than 15% and soils classified as "slightly to moderately restrictive". The evergreen stands are an additional condition that has limited restrictions. These stands are areas where selective clearing should first occur as the evergreen stands generally grow more quickly and have a lesser replacement value than the mature hardwoods found on site. The Composite Analysis identifies the least restrictive site conditions as "opportunity areas" as it is in these areas that the majority of development should occur due to the favorable site conditions. The majority of opportunity areas occur along the main peninsula of the site.

The Forest Ridge site is host to a variety of unique features including historic and cultural remnants, specimen hardwood trees, and lush habitats for a variety of local flora and fauna species as well as expansive views of Falls Lake. These features will be preserved and incorporated into future park development plans in order to provide a rich, diverse and exciting site for a variety of recreational uses.







#### A. EDUCATION

## ii. CITY OF RALEIGH PARKS AND RECREATION - NEEDS ASSESSMENT

In order to gain an understanding of recreation needs for the City of Raleigh, Committee members were provided with a copy of the Executive Summary from the Raleigh Parks Plan. The Parks Plan is a component of Raleigh's Comprehensive Plan and includes "recommendations for new park development, maintenance and continued renovation of existing parks and facilities, and guidelines that will allow the system to provide ample recreational opportunities for all citizens while remaining flexible to change with recreation trends, significant development opportunities and Raleigh's growing population." A Recreation Participation and Preference Survey, conducted by the Raleigh Parks and Recreation Department, was used to determine the current demand and the latent demand for the various recreation activities available throughout the Raleigh area. Latent demand is defined as a guideline of activities desired but are either lacking, not offered or not pursued due to conflicts with competing interests/desires. [Reference Appendix B: Minutes from Meeting #4]

Committee members were additionally introduced to the six divisions of the Parks and Recreation Department as well as to the following program areas within the Department: Athletics, Aquatics (8 pools, 2 year round), Arts Program (2 arts facilities), Adventure Program, Nature Program, Senior Adult Program, Teen Program, Youth Program, Historic Sites, and Summer Camps. Several program leaders presented overviews and specific needs and deficits of their programs to communicate where Forest Ridge Park could contribute to and augment their programming needs.



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#### **B. MISSION STATEMENT**

Following the education phase of the Master Plan Process, a Mission Statement was developed by committee members through a collaborative consensus building process. The Mission Statement was used to guide the Program Statement as well as the Master Plan for Forest Ridge Park.

"The Master Plan for Forest Ridge Park will focus on embracing the potential of the site while being sensitive to and preserving existing natural and cultural resources. The Park will promote a healthy and high quality lifestyle by providing diverse recreational and educational activities, including unique outdoor experiences, where people can learn, discover and explore. The Park and its activities will function in harmony with the beauty of the site's natural resources, inspiring appreciation and stewardship toward the natural world. Forest Ridge Park will strive to complement and contribute to the surrounding community as well as to the greater Raleigh Parks system and Falls Lake."







| PROGRAM ELEMENTS VOTING RESU       | LIS         |
|------------------------------------|-------------|
| Element                            | Total       |
| Restrooms                          | 45          |
| Picknicking                        | 44          |
| Hiking                             | 44          |
| Maintenance Facility               | 42          |
| Picnic shelters                    | 41          |
| Canoeing/Kayaking                  | 41          |
| Overlooks (ADA accessibility)      | 40          |
| Nature walks                       | 39          |
| K-12 Environmental Education       | 38          |
| Running/jogging                    | 36          |
| Fishing                            | 35          |
| Multi-use trail                    | 34          |
| Wildlife habitat enhancements      | 33          |
| Mountain biking                    | 33          |
| Adventure/Education Center         | 32          |
| Birdwatching                       | 32          |
| Sailing                            | 32          |
| Camping                            | 30          |
| Lake swimming                      | 30          |
| Playground                         | 29          |
| Rowing/sculling                    | 29          |
| Bird & Butterfly Garden            | 27          |
| Classroom/meeting facilities       | 26          |
| Boat Facility (non-motorized)      | 26          |
| Cultural Interpretation            | 25          |
| Orienteering                       | 25          |
| Waterfront Center                  | 24          |
| Camping Lodge                      | 23          |
| Public art                         | 22          |
| Mutli-use Field                    | 22          |
| Art Programming                    | 20          |
| Informal Amphitheater              | 15          |
| Challenge Facility w/climbing wall | 15          |
| Horseback Riding                   | 3           |
| Disc Golf                          | <del></del> |
| Volleyball                         | -2          |
| Tennis                             | -13         |
| Skateboarding                      | -22         |



#### C. PROGRAM STATEMENT

The program statement serves as the basis for planning the development of the park. The statement builds upon the education phase, and the comments and recommendations received from the public and Committee members at various meetings. The program statement also reflects the values of the Committee and its desires for the direction of the park's future development.

The program was developed through a consensus building process which included a brainstorming session to identify potential program elements and a voting session. Each Committee member voted on each potential program element by ranking it as either a high, medium or low priority. Committee Members could also identify the program element as "no" if they did not wish for the element to appear in the master plan. After each element was ranked by the Committee, votes were weighted using the following system:

High Priority = 3 points per vote Medium Priority = 2 points per vote Low Priority = 1 point per vote No = -2 points per vote

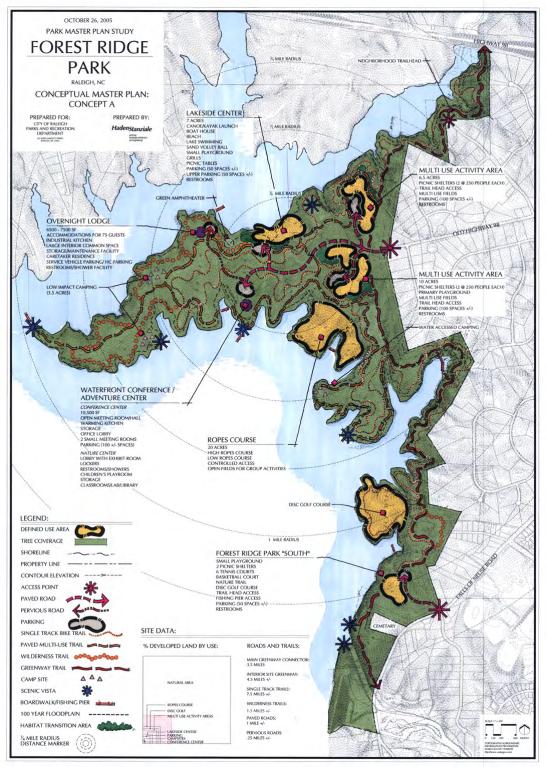
The final votes were compiled and reviewed by all voting members. At this point, the Committee agreed to delete all negative scoring elements, plus horseback riding, from the list of program elements. A final program statement was then prepared.

## i. FOREST RIDGE PARK PROGRAM STATEMENT

The Master Plan, in recognizing the goals of the Mission Statement and the desires of the Committee, shall provide the following:

- Unique recreation and educational programming that complements the site and promotes a healthy and high quality lifestyle for diverse users.
- A balance between proposed uses and preservation of existing natural and cultural resources.
- Structures, trails and other park elements designed in a manner to fit appropriately
  with the natural character of the site and to have minimal impact on the natural
  and cultural resources found on site.
- A plan for the park that functions in harmony with the site's natural resources, inspiring appreciation and stewardship toward the natural world.





Conceptual Master Plan: Concept A



#### D. CONCEPTUAL MASTER PLAN

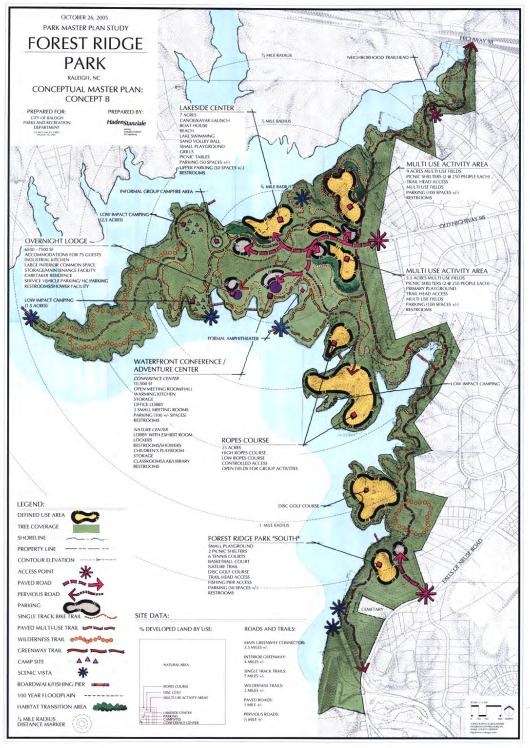
Following the direction of the mission statement and program statement, the consultants developed two Conceptual Master Plan scenarios. Conceptual Master Plan scenarios are conceptual land-use plans that graphically represent the general locations of site and program elements in relation to each other.

First, the consultants identified four primary park areas starting from the southern-most end including:

- a. Forest Ridge Park "South" a neighborhood scale park with trail head access
- b. South Transition Area the linear section along the site just north of Forest Ridge Park "South"
- c. Primary Park Area main peninsula area, with access from Old Highway 98
- d. North Transition Area—the linear section north of the peninsula

The four primary park areas were identified by the consultants based on site characteristics, access points, and proposed program elements. Forest Ridge Park "South" is intended as a neighborhood scale park with its own unique elements and features as well as trail head connections to the Primary Park Area. With its own access point off of Falls of Neuse Road, this portion of Forest Ridge Park will help to alleviate some of the traffic accessing the park from Old NC 98, a concern of residents in the neighboring Wakefield Estates community. Site characteristics dictated that the two linear areas of the site would serve as transition areas accommodating only trail systems and possible boardwalks where necessary. Finally, the large peninsula portion of the site was identified as the Primary Park Area, with access from Old Highway 98, as it is suitable to host the majority of features proposed for the site. A secondary neighborhood access point was included north of Old Highway 98 off of Tharington Street. Due to extreme site conditions, access from Highway 98 could not reasonably be considered as a feasible access point into the site although there were several Committee discussions surrounding this issue throughout the process.





Conceptual Master Plan: Concept B



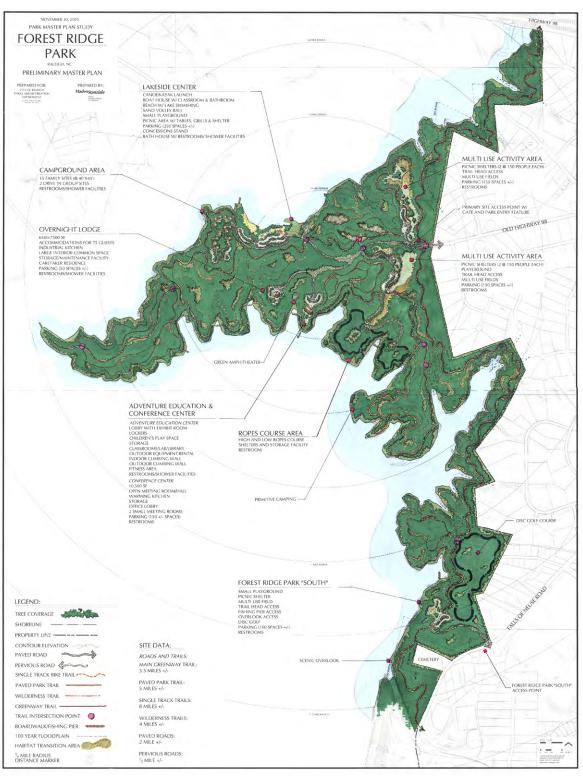
## CONCEPTUAL MASTER PLAN (cont.)

The consultants placed general activity areas on the site based on existing conditions, site constraints and proposed program elements. For example, the Lakeside Center was located along the northern shoreline where topographical conditions provide appropriate areas for swimming as well as an area suitable to serve as a non-motorized boat launch. General activity areas were identified in naturally flat areas for incorporating multi-use fields and picnic shelters. By locating the activity areas in generally flat areas, minimal grading will be required during time of construction. The primary structures were located on suitable soils with attention to solar access. Diverse trail systems and low impact camping sites were located throughout the site and in close proximity to parking lots serving main activity areas for easy access to these site elements.

Committee members reviewed the drawings and provided individual comments regarding their observations, opinions and concerns. The Committee agreed for the consultants to move forward with a preliminary master plan and voted on Concept B as the preferred concept to guide the next phase of the master plan development process. [For complete Committee comments on the proposed Relationship Diagrams/Conceptual Land Use Plan, reference **Appendix B**: Minutes from Meeting #8.]









#### E. PRELIMINARY MASTER PLAN

The Preliminary Master Plan illustrates the various elements, relationships and their proposed locations in Forest Ridge Park. The Preliminary Master Plan is a more refined illustration of proposed development in that it defines individual site elements within the activity areas.

Based on direction and comments from the Committee, the Preliminary Master Plan focused on modifying access points, identifying and refining proposed activity areas, and further developing the network of trail systems.

#### **Access Points**

Two access points are proposed for Forest Ridge Park. The primary access point into the site will be from Old Highway 98 as it is from this point that the primary peninsula area can be most easily accessed. Falls of Neuse Road will provide access to the southern end of the site. The northern most access point identified in the Relationship Diagrams was removed due to its potential to only accommodate a very small parking lot that would not be visible from any main roads. With two access points into the site, access will be easier to manage and control.

#### **Primary Activity Areas**

The primary activity areas include the Adventure Education and Retreat Center, Overnight Lodge, Lakeside Center, two Multi Use Activity Areas, Ropes Course, Camping Area, and Forest Ridge Park South.

The Adventure Education and Retreat Center is located within close proximity to the Overnight Lodge in an attempt to consolidate structures, a request from Committee Members. The Adventure Education and Retreat Center is also located within walking distance to the Ropes Course for groups to easily move between both facilities.

The Lakeside Center provides multiple recreational opportunities. These elements include play areas, a beach with water access, fishing pier, trail head access, boat launch, concessions stand, and restrooms and showerhead facilities. A small camping area is also located within close proximity to the Lakeside Center. Due to demand for group



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## PRELIMINARY MASTER PLAN (cont.)

camping sites, the Committee requested that all single family camp sites be removed and be replaced with group camping facilities.

Both multi use areas are located near the main entrance to the park just beyond a 350' forested buffer. These areas focus on providing picnic shelters in close proximity to open space for a variety of passive recreational uses. Additionally, each area provides trail head access to most trail types.

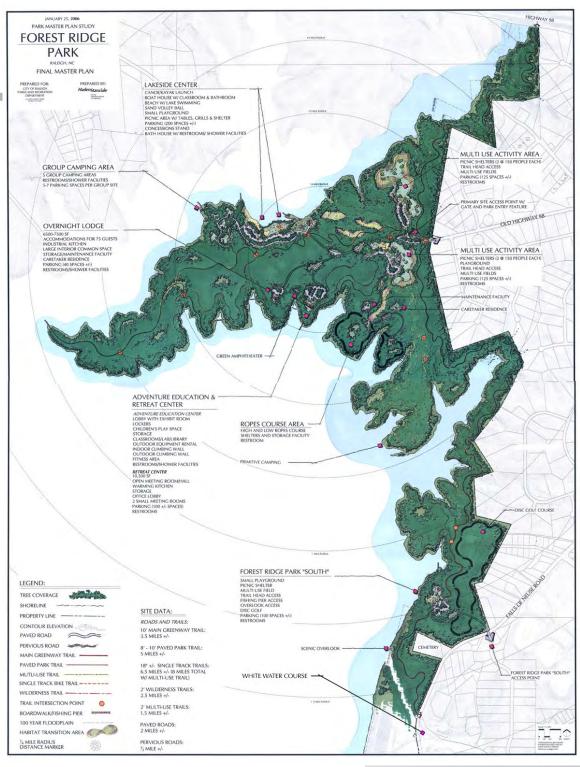
Forest Ridge Park "South" provides its own recreational opportunities as well as trail head access that connects to the primary park area. A disc golf course, picnic shelter, fishing pier and overlook access, and a small multi-use field establish Forest Ridge Park "South" as its own destination or as an access point to the primary park area via trails.

#### Trail Systems

The network of trail systems includes five unique trail types including a 10' paved greenway connector trail, a 6'-8' paved park trail, and three unpaved trail types including a 2' multi-use trail, 18" +/- single track mountain biking trails, and 2' wilderness trails. The network of trails was designed in a manner to minimize intersection points between different trail types, and to provide trail loops of varying lengths and interest.

[ For complete Committee Comments concerning the Preliminary Master Plan, reference **Appendix B**: Minutes from Meetings #9 - 11.]







#### F. FINAL MASTER PLAN

The final Master Plan dated January 25th was prepared based on approval of the Preliminary Master Plan revised by the Committee. The Master Plan illustrates those elements previously outlined in the Preliminary Master Plan and incorporates the Committee's desires to reduce parking where possible, expand the disc golf course to ensure that adequate acreage is provided for a typical disc golf course, designate group camp sites in the camping area and to refine the trail system as approved in the Preliminary Master Plan. Additionally, a small maintenance building and care taker's residence were located on the plan.

The plan generally locates the primary activity areas which include the Adventure Education & Retreat Center, Overnight Lodge, Lakeside Center, Camping Area, Multi-Use Activity Areas, and Forest Ridge Park South. All parking areas associated with the primary activity areas will be situated no closer than 200' from the water's edge to minimize impacts from surface run off. The plan also generally locates the trail network and a series of fishing piers and boardwalks, some of which fall outside of the primary activity areas.

The Final Master Plan was approved by the Committee by a vote of 11-2 with an amendment to change the surface of the southern portion of the paved park trail to a pervious surface.

The City of Raleigh is committed to utilizing Best Management Practices (BMPs) and sustainable design methodologies throughout the design and construction of Forest Ridge Park. Such methodologies will help to protect the water quality of Falls Lake and will support the Forest Ridge Park Mission Statement by employing development strategies that are sensitive to and preserve existing natural and cultural resources.

The following pages describe park elements and detail the plans of the primary activity areas. Additionally, a description of a separate Whitewater Park which technically falls on the site but is not a component of the Forest Ridge Park Master plan is provided as it will also support some of the adventure programming proposed for Forest Ridge Park.











FINAL MASTER PLAN (cont.)

#### i. ACCESS POINTS

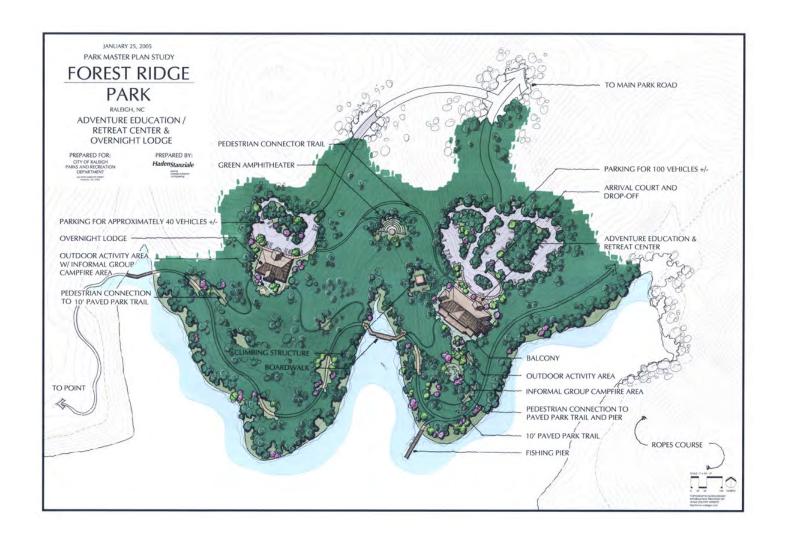
The access points did not change from those presented in the Preliminary Master Plan. The primary access into the site will be from Old Highway 98 which leads directly into the primary peninsula of the site and accesses the majority of the proposed elements. The second access into the site is from Falls of Neuse Road and directly serves Forest Ridge Park "South" while providing trail access to the primary park area.

#### ii. TRAIL NETWORK

The trail network is composed of 5 unique trail types: 10' paved greenway connector trail, a 6'-8' paved park trail, and three unpaved trail types including a 2' multi-use trail, 12"-18" +/- single track mountain biking trails, and 2' wilderness trails. The exact surfaces of the trails will be decided at time of construction but it is noted that the committee desires for the southern portion of the 6'-8' paved park trail to be constructed of a pervious material that can perform as universally as possible. It is also noted that the mountain bike trails will stretch up to 20 miles in length and the wilderness trails will stretch up to 5 miles in length. A partnership between Triangle Off-Road Cyclists (TORC) and the City of Raleigh may possibly be formed to develop, construct and maintain the network of single track mountain biking trails. The trails will be constructed using the most recent sustainable trail construction methods.

Both the greenway connector trail and the paved park trail will accommodate the most diverse user groups including walkers, joggers, and bikers. The paved park trail will follow, where possible, an existing fire road already existing on site. The multi-use trail will be open to both bikers and hikers with hikers having the right-of-way while the wilderness trails will be specifically for hikers. The diverse trail network will offer premier recreational opportunities for people of all ages, abilities, and recreational interests and will lead users through existing woodlands, pine forests and along the water's edge.







FINAL MASTER PLAN (cont.)

## iii. ADVENTURE EDUCATION/RETREAT CENTER AND OVERNIGHT LODGE

The Adventure Education & Retreat Center and the Overnight Lodge were generally located along the southern shore to ensure solar access for both facilities. While each structure is located up hill from the shoreline, their placement ensures beautiful filtered views across Falls Lake as well as screened views from the water.

While the exact design programming of the Adventure Education and Retreat Center has yet to be determined, the Center is intended to serve as the visitor's center for Forest Ridge Park providing information as well as unique educational and adventure amenities both inside and out.

The Master Plan identifies a general location outside of the Center for a climbing structure which would provide opportunities for open climbs as well as planned programs and events. From youth birthday parties to climbing expositions this structure would provide unmatched climbing opportunities within the City of Raleigh Parks and Recreation programs. A Ropes Course is identified on the Master Plan within walking distance from the Center and will incorporate both high and low challenge elements. Serving as a leadership development and teambuilding tool, the Ropes Course would provide an opportunity for youth groups, schools, corporate groups, and adult groups among others to pursue an adventure experience that can have lasting benefits for the individual and team.

Other activities which could occur immediately around the Adventure Education and Retreat Center are birding, orienteering or plant identification along interpretive trails, informal group gatherings at the campfire ring as well as a variety of Adventure Education trainings or pre-trip meetings. Small footpaths are identified on the Master Plan to provide easy access from the Center to the paved park trail and to the fishing pier located along the water's edge.

The Center is conceptualized as a two story structure with unique uses distributed between the two floors. For example, the upper level is intended to serve as the Retreat Center with a primary meeting hall as well as smaller meeting rooms for various size groups. Additional amenities such as a warming kitchen, restrooms and administrative office would support





View from water of Adventure Education & Retreat Center



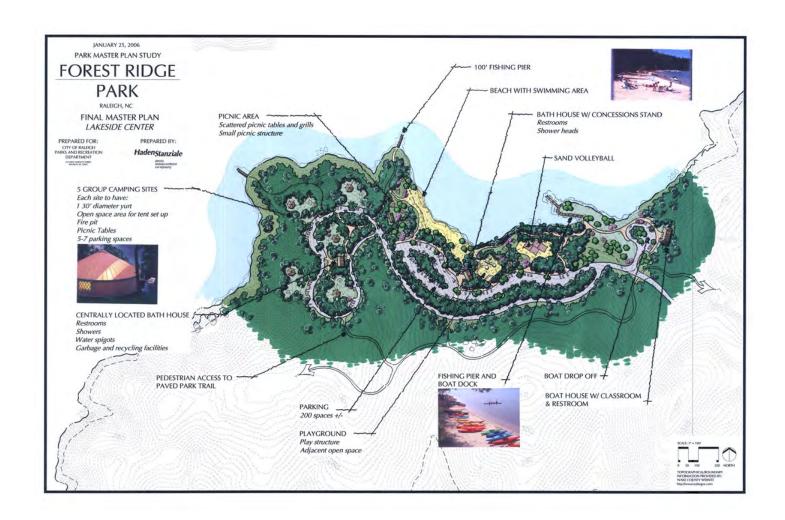
FINAL MASTER PLAN (cont.)

# ADVENTURE EDUCATION/RETREAT CENTER AND OVERNIGHT LODGE (cont.)

the activities of the Retreat Center. The lower level is intended to serve as the Adventure Education Center with a variety of environmental and adventure amenities such as interpretive and experiential displays with environmental themes, an indoor climbing wall, an outdoor resource library, an outdoor themed fitness area, and an indoor nature themed play space. Additionally, the Adventure Education Center would be an appropriate location to house a gear rental and storage area as well as an administrative office, small meeting space and restrooms. It is noted that the exact design of the Center will be dictated by the proposed programming for the Center.

For those seeking an overnight or multi-day experience in Forest Ridge Park, the Overnight Lodge provides this service. Diverse groups from grade schools to corporate groups can plan a multi-day experience involving environmental education, outdoor adventure activities, or multi-day teambuilding experiences. The Overnight Lodge provides sleeping areas, common space, a kitchen and dining area. Nearby, a green amphitheater offers a beautiful setting for groups gathering to engage in educational activities or small performances. With the Adventure Education and Retreat Center in close proximity to the Overnight Lodge, participants can move easily between the two areas and benefit from the programs and amenities provided at each facility.







FINAL MASTER PLAN (cont.)

#### iv. LAKESIDE CENTER AND CAMPING AREA

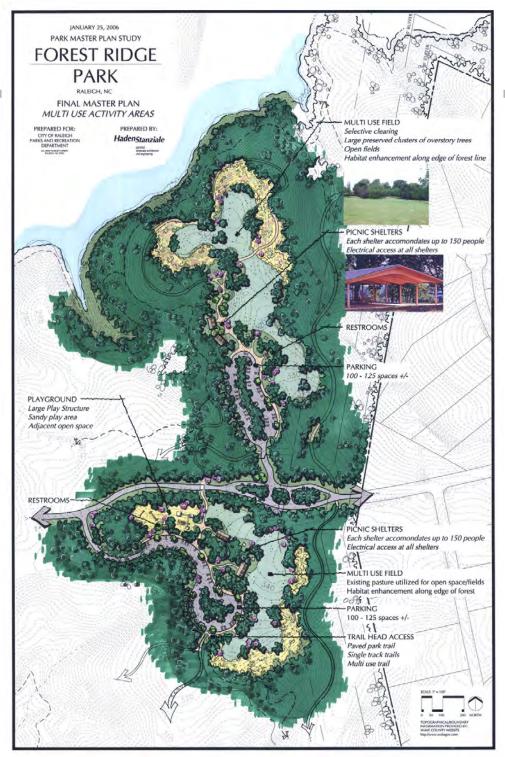
The Lakeside Center is a unique component of the site in that it completely embraces the site's fortunate location on Falls Lake. The Lakeside Center offers a beach front activity area including a sand beach, picnicking facilities, fishing pier as well as a small play ground and two sand volley ball courts. There is the potential to to include up to four additional sand volleyball courts in the beach area. The sand beach is generally located in an area that shelters it from erosion causing northwest winds. Currently a swimming area cannot be proposed as originally planned due to Falls Lake being classified as a "Class B Area" which prohibits swimming.

The Lakeside Center will also feature a boathouse to include storage, restrooms, a rental office, and a wet classroom. The wet classroom is used for water based classes that need to be able to come in to receive instruction via lecture, video, etc. and then be able to return to the water. The boathouse will provide paddling and rowing opportunities through instructional, rental, and private launches of non-motorized boats. A natural launch area will be augmented by a series of docks and an additional pier in order to respond to fluctuating water levels and to control erosion.

A small group camping area is located within walking distance of the Lakeside Center on a separate one way road. The camping area offers an opportunity for the public to utilize group camp sites as well as to serve as a summer day camp base for City of Raleigh Parks and Recreation camp programs. The camping area provides five group sites each with a 750 SF Yurt style shelter and adjacent open areas providing activity space and tenting opportunities. Amenities such as restrooms, showers, and storage space will support the camping area. Power, phone, and water will be provided at strategic locations in the camp where determined necessary.

An additional camping area designated as "paddle-up primitive camping" is remotely located along the edge of the southern transition area just south of the Ropes Course (reference Final Master Plan, p. 46). The campsite would offer a unique opportunity for canoeing or kayaking to the location and camping overnight near the water's edge while practicing "Leave no Trace Outdoor Ethics." The site is intended to be primitive in that no shelter, water, or power is proposed. A restroom facility of some sort is required for the site but all other waste would be packed out by users. In order to ensure minimal impact to the area, groups utilizing the site would be lead by a trained outdoor educator.







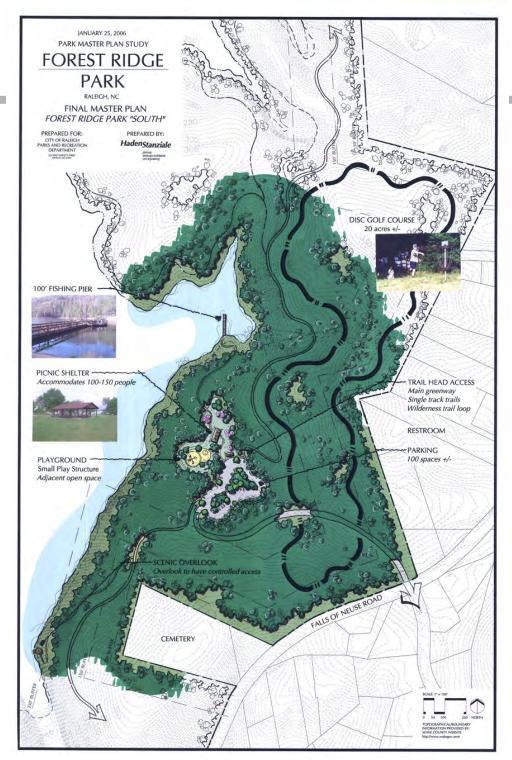
FINAL MASTER PLAN (cont.)

#### v. MULTI-USE ACTIVITY AREAS

Two Multi-Use Activity Areas are located on the plan in the main park area. Both activity areas are situated just beyond the 350' buffer located along the eastern property line of the site. The Multi-Use Activity Areas are predominantly large natural open spaces with picnic shelters, restrooms, trail heads and parking. The South Multi-Use Activity Area additionally hosts a large play structure. Amenities typically associated with formal play fields such as backstops, fences, markers, permanent goals will be excluded. The Multi-Use Activity Areas will provide opportunities such as picnicking, kite flying, pickup athletic games or other open space games such as Frisbee. The open space areas are intended to support informal or non-scheduled recreational activities as well as occasional special events. With flowing shapes, specimen trees, and habitat transition areas, these locations will strive to mesh into the natural environment and will require selective clearing only where necessary. Grading will occur only where necessitated for safety or drainage since maintaining the natural flow of the land is a guiding principle. Open space will be flexible in its public use and may in times of need serve as overflow parking. Lighting employed near shelters will be minimized and where appropriate will be low voltage downward pointing lighting.









FINAL MASTER PLAN (cont.)

#### vi. FOREST RIDGE PARK "SOUTH"

Forest Ridge Park "South" provides its own recreational opportunities as well as trail head access connecting to the primary park area. A disc golf course, picnic shelter, small play structure, fishing pier, scenic overlook, and a small open space establish Forest Ridge Park "South" as its own destination or as an access point to the primary park area via trails.

The disc golf course will be designed with minimal to no clearing of vegetation and will remain a predominantly natural area with limited design interventions used to designate the course. The design of the scenic overlook will incorporate controlled access, and safety features to deter cliff jumping and general loitering in the area.

#### vii. WHITEWATER PARK

A Whitewater Park at the base of Falls Dam is currently under the planning phase. This project focuses on stream modifications in order to maximize the instructional and play potential for whitewater paddlers. Including a river trail, water access, viewing areas, and interpretive signs, this park will help to connect the community to the water resource of the Neuse River.

[For complete Committee comments concerning the Final Master Plan, reference **Appendix B**: Minutes from Meetings #12 - 14. For complete Public Comments regarding the Final Master Plan, reference **Appendix C**: Official Public Comments.]





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## BUDGET SUMMARY AND COST ESTIMATES

This estimate reflects our current understanding of construction costs and is the result of prices obtained from current industry standards as well as from discussions with the City of Raleigh Parks and Recreation Department and their staff. Prices are subject to change at the time the bids are let due to actual design, material availability, contractor workload and site conditions. As this project is in the Master Plan phase, actual quantities shown may vary upon completion of design development and construction documents. A preliminary cost estimate for each section follows below:

| General Site Preparation        |          |                |
|---------------------------------|----------|----------------|
| Mobilization                    |          | \$15,000.00    |
| Survey                          |          | \$35,000.00    |
|                                 | Subtotal | \$50,000.00    |
| Trails                          |          |                |
| 10' Wide Asphalt Greenway Trail |          | \$1,201,200.00 |
| 8' Wide Asphalt Park Trail      |          | \$1,452,000.00 |
| Single Track Trail-By Others    |          | \$0.00         |
|                                 | Subtotal | \$2,653,200.00 |

| Adventure Education/Retreat Center   |                |
|--------------------------------------|----------------|
| Site preparation                     | \$177,670.00   |
| 10,500 SF Center                     | \$1,837,500.00 |
| Adventure Education Program Elements | \$332,000.00   |
| Site furnishings and landscaping     | \$57,264.95    |
| Parking and roads                    | \$187,901.00   |
| On-site water and sewerage           | \$313,500.00   |
| Subtotal                             | \$2,905,835.95 |



| Ropes Course     |              |
|------------------|--------------|
| Site Preparation | \$54,000.00  |
| Course elements  | \$180,000.00 |
| Site furnishings | \$175,000.00 |
| Subtota          | \$409,000.00 |

| Overnight Lodge                  |          |                |
|----------------------------------|----------|----------------|
| Site preparation                 |          | \$73,846.80    |
| 7,500 SF Lodge                   |          | \$1,312,500.00 |
| Site furnishings and landscaping |          | \$35,397.50    |
| Parking and roads                |          | \$99,105.00    |
| On-site water and sewerage       |          | \$184,800.00   |
|                                  | Subtotal | \$1,705,649.30 |

| Green Amphitheater               |          |             |
|----------------------------------|----------|-------------|
| Site Preparation                 |          | \$5,091.00  |
| Stage and seatwalls              |          | \$23,107.50 |
| Site furnishings and landscaping |          | \$9,500.00  |
|                                  | Subtotal | \$37,698.50 |

| Lakeside Center                             |                |
|---------------------------------------------|----------------|
| Site Preparation                            | \$326,306.40   |
| Beach and associated facilities/furnishings | \$405,361.50   |
| Boathouse w/ classroom & storage            | \$78,120.00    |
| Parking                                     | \$247,079.95   |
| Roads                                       | \$111,452.00   |
| On-site water and sewerage                  | \$447,300.00   |
| Subtotal                                    | \$1,615,619.85 |

| Group Camping Sites - 5 sites |              |
|-------------------------------|--------------|
| Site Preparation              | \$59,190.00  |
| Yurts                         | \$75,000.00  |
| Site Furnishings              | \$327,375.00 |
| Parking and road              | \$69,512.00  |
| On-site water and sewerage    | \$184,800.00 |
| Subtotal                      | \$715,877.00 |



## BUDGET SUMMARY AND COST ESTIMATES (cont.)

| North Multi-Use Area             |          |                |
|----------------------------------|----------|----------------|
| Site Prepartion                  |          | \$322,282.00   |
| Site furnishings and landscaping |          | \$330,941.50   |
| Parking                          |          | \$229,021.00   |
| On-site water and sewerage       |          | \$313,500.00   |
|                                  | Subtotal | \$1,195,744.50 |

| South Multi Use Area             |          |                |
|----------------------------------|----------|----------------|
| Site preparation                 |          | \$296,650.20   |
| Site furnishings and landscaping |          | \$358,001.50   |
| Parking                          |          | \$262,351.00   |
| On-site water and sewerage       |          | \$313,500.00   |
|                                  | Subtotal | \$1,230,502.70 |

| Forest Ridge Park South          |          |              |
|----------------------------------|----------|--------------|
| Site Preparation                 |          | \$88,918.20  |
| Site furnishings and landscaping |          | \$255,249.00 |
| Parking                          |          | \$206,516.40 |
| On-site water and sewerage       |          | \$264,000.00 |
|                                  | Subtotal | \$814,683.60 |

| Miscellaneous Site Items                    |              |
|---------------------------------------------|--------------|
| Boardwalks 8' Wide (Three Total)            | \$72,000.00  |
| Signage                                     | \$25,000.00  |
| Pier at Pennisula Point - 10' Wide          | \$21,000.00  |
| Entry Gate                                  | \$4,000.00   |
| Caretakers House                            | \$175,000.00 |
| Maintenance Building                        | \$75,000.00  |
| Septic Field Locations 2 & 3 set up cost    | \$54,000.00  |
| Septic Field Locations 4 Thru 8 set up cost | \$85,000.00  |
| Guard House                                 | \$18,000.00  |
| Sub Total                                   | \$529,000.00 |

| Project SubTotal |  |   |                 | \$13,862,811.40 |
|------------------|--|---|-----------------|-----------------|
| 25% Cont.        |  | 0 | .25             | \$3,465,702.85  |
| Project Total    |  |   | \$17,328,514.25 |                 |



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## PHASING PLAN AND PRIORITIES

The Priority Program Elements represent groupings of proposed program elements into high, medium, and low priority levels. These priorities are intended to broadly define the phasing of the major park elements over a 20 year period. The first stage of park development will focus on implementing those features within the high priority category that are likely to provide the highest value to the broadest portion of the public. The selection of these high value features will be constrained by both the detailed costing factors derived from the initial design and by the available funding. During the early stages of initial design additional funding sources will be explored. Special emphasis will be placed on prorating the funding to realize the primary benefits of each of the high priority elements.

Committee members reviewed, discussed and revised the recommended Priority Program Elements until approval was reached 11-2 for the following:

#### HIGH

Adventure Education and Retreat Center
(includes Ropes Course and Climbing Wall)
Multi-Use Activity Area (North)
Paved Park Trail to Point (North Section)
Forest Ridge Park "South"
Associated Roads
10' Paved North/South Greenway Connector

#### MEDIUM

Overnight Lodge Lakeside Center Paved Park trail with alternate surface (South Section) Associated Roads

#### LOW

Multi-Use Activity Area (South) Camping area Associated roads and building







# VII. PROJECT SUMMARY

The Forest Ridge Park Master Plan represents a comprehensive and collaborative vision for the Forest Ridge Park site located on beautiful Falls Lake in Wake County, North Carolina. The Master Plan Committee displayed dedication and commitment throughout the process to develop a plan that thoughtfully considers the site's natural characteristics, recreational needs and desires of the community at large as well as community concerns and input. The Final Master Plan reflects the Committee's desire to promote environmental awareness and healthy lifestyles through the provision of diverse recreational and educational opportunities represented in the park program.

Using Environmental and Adventure Education as a driving theme for Forest Ridge Park, the site is sensitively master planned to minimize disturbance and development and to preserve the natural character for all to enjoy. Additionally, the City of Raleigh is committed to employing Best Management Practices and sustainable design methodologies where possible throughout the site to further the environmental and adventure education spirit of the plan and to protect this valuable natural resource for generations to come.

The Forest Ridge Park Master Plan is the vehicle to ensure citizens that quality and sensitive development as well as appropriate program elements will occur throughout the design and development of Forest Ridge Park making it a jewel in the City of Raleigh Parks and Recreation system.

